TERM: Training & Education Resource Model

	Kank based on comparative scores in openings, wages, skins, growth, and turnover, using weights 5, 5, 1, 1, 1										
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score	Growth Rate	Turn- over Ratio	Training / Education Requirements			
1	11-1021	General and Operations Managers	1,352	\$46.57	659	3.7	2.2	Bachelor's or higher deg. + work exp.			
2	15-1031	Computer Software Engineers, Applications	528	\$34.19	607	6.6	8.3	Bachelor's degree			
3	17-2051	Civil Engineers	244	\$34.91	709	5.6	3.9	Bachelor's degree			
4	15-1032	Computer Software Engineers, Systems Software	255	\$38.13	647	4.9	6.2	Bachelor's degree			
5	11-9021	Construction Managers	446	\$40.94	616	4.9	3.1	Bachelor's degree			
6	41-9021	Real Estate Brokers	503	\$54.50	539	8.4	4.6	Work experience in a related occupation			
7	41-9022	Real Estate Sales Agents	537	\$35.29	575	5.7	3.1	Postsecondary vocational training			
8	15-1071	Network and Computer Systems Administrators	203	\$30.96	697	5.4	5.9	Bachelor's degree			
9	15-1081	Network Systems and Data Communications Analysts	228	\$29.06	669	7.1	7.1	Bachelor's degree			
10	1 4 / - 1 () 1 1	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	608	\$28.57	658	3.9	2.7	Work experience in a related occupation			
11	17-1011	Architects, Except Landscape and Naval	155	\$32.01	663	6.7	6.8	Bachelor's degree			
12	11-1011	Chief Executives	270	\$69.19	708	3.0	1.8	Bachelor's or higher deg. + work exp.			
13	15-1051	Computer Systems Analysts	256	\$33.77	619	4.2	4.4	Bachelor's degree			
14	11-3021	Computer and Information Systems Managers	186	\$45.21	638	3.8	2.4	Bachelor's or higher deg. + work exp.			
15	41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Pro	1,064	\$26.11	593	5.9	2.3	Moderate-term on-the-job training			
16	11-3031	Financial Managers	304	\$43.42	587	3.3	2.8	Bachelor's or higher deg. + work exp.			
17	13-1111	Management Analysts	474	\$33.16	657	2.7	2.3	Bachelor's or higher deg. + work exp.			
18	41-3031	Securities, Commodities, and Financial Services Sales Agents	263	\$35.46		4.8	4.8	Bachelor's degree			
19	29-1021	Dentists, General	111	\$62.22	777	3.8	2.6	First professional degree			
20		Marketing Managers	160	\$39.31		3.9		Bachelor's or higher deg. + work exp.			
21		Pharmacists	220	\$43.95		4.6		First professional degree			
22		Registered Nurses	1,161	\$28.31	645	2.9	1.6	Associate degree			
23		Dental Hygienists	142	\$33.04		6.5		Associate degree			
24	23-1011		326	\$52.88		2.8	2.4	First professional degree			
25		Sales Managers	328	\$42.38		3.2	1.9	Bachelor's or higher deg. + work exp.			
26		Accountants and Auditors	1,080	\$25.33		4.0	2.3	Bachelor's degree			
27	47-2111	Electricians	1,037	\$17.78	695	7.6	4.1	Long-term on-the-job training			

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1											
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score	Growth Rate	Turn- over Ratio	Training / Education Requirements				
28	49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	312	\$22.30	704	4.7	2.6	Long-term on-the-job training				
29	47-2152	Plumbers, Pipefitters, and Steamfitters	781	\$18.07	718	7.1	3.2	Long-term on-the-job training				
30	19-3021	Market Research Analysts	359	\$27.66	517	9.2	3.5	Bachelor's degree				
31	49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	502	\$17.68	721	8.3	7.2	Long-term on-the-job training				
32	49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	317	\$28.95	736	3.0	1.3	Work experience in a related occupation				
33	11-9032	Education Administrators, Elementary and Secondary School	142	\$33.77	675	4.0	1.8	Bachelor's or higher deg. + work exp.				
34	37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping	472	\$17.98	687	8.0	9.5	Work experience in a related occupation				
35	41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scienti	1,524	\$24.60	574	4.0	1.5	Moderate-term on-the-job training				
36	13-2052	Personal Financial Advisors	162	\$39.60	411	5.6	4.9	Bachelor's degree				
37	11-9041	Engineering Managers	181	\$53.15	692	2.2	1.2	Bachelor's or higher deg. + work exp.				
38	13-1051	Cost Estimators	252	\$26.66	607	4.3	2.1	Work experience in a related occupation				
38	15-1061	Database Administrators	131	\$28.18	615	4.8	5.7	Bachelor's degree				
40	11-9033	Education Administrators, Postsecondary	110	\$43.07	641	3.9	1.8	Bachelor's or higher deg. + work exp.				
41	29-1123	Physical Therapists	89	\$30.64	659	4.0	5.4	Master's degree				
42	11-9141	Property, Real Estate, and Community Association Managers	449	\$27.92	550	3.8	2.3	Bachelor's degree				
43	17-1012	Landscape Architects	69	\$30.74	635	7.4	7.6	Bachelor's degree				
44	33-3051	Police and Sheriff's Patrol Officers	369	\$24.09	730	3.2	1.3	Long-term on-the-job training				
45	43-1011	First-Line Supervisors/Managers of Office and Administrative Support Workers	1,053	\$23.05	641	3.0	1.5	Work experience in a related occupation				
46		Chiropractors	52	\$42.76		4.0	2.4	First professional degree				
47		Computer Support Specialists	475	\$22.04	575	3.8	3.6	Associate degree				
48	13-2021	Appraisers and Assessors of Real Estate	202	\$23.88	580	5.1	2.6	Postsecondary vocational training				
49	17-2071	Electrical Engineers	177	\$37.06	651	2.2	1.2	Bachelor's degree				
50	17-2141	Mechanical Engineers	144	\$34.62	649	3.1	1.1	Bachelor's degree				

TERM: Training & Education Resource Model

Code Occupational Little ings Wage \$ 51 17-2112 Industrial Engineers 137 \$31.82 52 11-9051 Food Service Managers 303 \$21.99	ONET Score 638 664 647 679	Growth Rate 3.4 3.0	Turn- over Ratio 1.5	Training / Education Requirements Bachelor's degree
52 11-9051 Food Service Managers 303 \$21.99	664 647			<u> </u>
J J	647	3.0	2	1
			2.0	Work experience in a related occupation
53 25-1071 Health Specialties Teachers, Postsecondary 52 \$36.67	670	4.7	2.2	Master's degree
54 29-1063 Internists, General 47 \$83.97	0//	3.1	2.6	First professional degree
55 13-2051 Financial Analysts 144 \$28.12	559	4.1	3.1	Bachelor's degree
56 53-3032 Truck Drivers, Heavy and Tractor-Trailer 1,058 \$18.84	614	3.6		Moderate-term on-the-job training
57 17-1022 Surveyors 136 \$22.30	688	6.4		Bachelor's degree
58 13-2072 Loan Officers 314 \$35.01	471	2.7		Bachelor's degree
59 25-2031 Secondary School Teachers, Except Special and Vocational 824 \$18.86	647	3.9	1.5	Bachelor's degree
59 33-1012 First-Line Supervisors/Managers of Police and Detectives 93 \$36.03	763	3.1	1.0	Work experience in a related
/1 17 2011 Analyticational and Civil Draftons	FO.4	Г /	2.1	occupation
61 17-3011 Architectural and Civil Drafters 215 \$21.83	594	5.6	2.1	Postsecondary vocational training
62 13-1073 Training and Development Specialists 208 \$22.58	606	3.4	2.7	Bachelor's degree
63 49-2098 Security and Fire Alarm Systems Installers 146 \$19.80	619	6.8	3.9	Postsecondary vocational training
64 17-2072 Electronics Engineers, Except Computer 122 \$35.87	673 707	2.2	1.2	Bachelor's degree
65 11-9111 Medical and Health Services Managers 139 \$31.80		2.0		Bachelor's or higher deg. + work exp.
66 27-2012 Producers and Directors 46 \$28.26	627	7.1	5.5	Bachelor's or higher deg. + work exp.
67 29-1062 Family and General Practitioners 43 \$66.62	672	2.9		First professional degree
68 33-2011 Fire Fighters 193 \$19.39	753	4.3	1.6	Long-term on-the-job training
69 33-1021 First-Line Supervisors/Managers of Fire Fighting and Prevention Workers 68 \$33.94	761	3.9	1.0	Work experience in a related occupation
70 25-1021 Computer Science Teachers, Postsecondary 85 \$27.45	637	4.6	2.1	Master's degree
71 47-4011 Construction and Building Inspectors 97 \$22.52	654	5.2	2.6	Work experience in a related occupation
72 29-1071 Physician Assistants 80 \$30.92	566	4.3	3.1	Bachelor's degree
73 25-2021 Elementary School Teachers, Except Special Education 1,518 \$16.68	611	4.0	2.0	Bachelor's degree
74 29-1124 Radiation Therapists 43 \$35.67	675	3.9	1.9	Associate degree
75 27-1024 Graphic Designers 218 \$21.16	550	4.1	3.4	Bachelor's degree
76 11-2031 Public Relations Managers 47 \$34.70	581	4.6	3.0	Bachelor's or higher deg. + work exp.
77 17-3022 Civil Engineering Technicians 126 \$21.26	590	6.2		Associate degree
78 17-2081 Environmental Engineers 35 \$32.67	619	5.5	3.6	Bachelor's degree

Phoenix MSA TERM Ranking by Occupation '06-'08 TERM: Training & Education Resource Model

Ran	k based	l on compara	ative score	s in open	ings,	wages,	skills,	growth,	and tu	ırnover,	using \	weights (3, 3,	1, 1	1, 1	l

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1										
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score	Growth Rate	Turn- over Ratio	Training / Education Requirements			
79	23-2011	Paralegals and Legal Assistants	145	\$23.48	530	3.9	6.2	Associate degree			
80	49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	70	\$25.38	598	5.6	2.8	Postsecondary vocational training			
81	29-2032	Diagnostic Medical Sonographers	35	\$30.19	639	5.4	3.3	Associate degree			
82	25-1011	Business Teachers, Postsecondary	62	\$31.21	607	4.0	1.9	Master's degree			
83	27-1011	Art Directors	45	\$29.31	595	6.3	3.0	Bachelor's or higher deg. + work exp.			
84	h <	First-Line Supervisors/Managers of Transportation and Material-Moving Machine an	123	\$25.25	650	3.2	1.5	Work experience in a related occupation			
85	11-2011	Advertising and Promotions Managers	49	\$33.69	582	4.0	2.5	Bachelor's or higher deg. + work exp.			
86	11-3011	Administrative Services Managers	154	\$27.38	577	2.8	1.6	Bachelor's or higher deg. + work exp.			
87	41-1011	First-Line Supervisors/Managers of Retail Sales Workers	1,041	\$19.39	571	2.8	1.7	Work experience in a related occupation			
88	25-9031	Instructional Coordinators	111	\$19.66	647	4.2	3.1	Master's degree			
89	19-2041	Environmental Scientists and Specialists, Including Health	35	\$25.65	711	4.6	3.1	Master's degree			
90	41-3011	Advertising Sales Agents	86	\$23.36	540	6.7	3.8	Moderate-term on-the-job training			
91	<u>4 - () /</u>	First-Line Supervisors/Managers of Non-Retail Sales Workers	243	\$30.64	577	1.5	0.9	Work experience in a related occupation			
92	27-1021	Commercial and Industrial Designers	44	\$26.58	603	5.3	4.5	Bachelor's degree			
92	47-2141	Painters, Construction and Maintenance	1,042	\$14.05	555	7.1	5.1	Moderate-term on-the-job training			
94	47-2211	Sheet Metal Workers	288	\$16.27	578	6.3	2.7	Long-term on-the-job training			
95	29-2034	Radiologic Technologists and Technicians	113	\$24.14	624	3.1	1.9	Associate degree			
96	31-9091	Dental Assistants	340	\$15.66	598	6.3	2.4	Moderate-term on-the-job training			
97	<i>41-7</i> 11/3	Operating Engineers and Other Construction Equipment Operators	498	\$19.56	558	3.7	1.5	Moderate-term on-the-job training			
98	29-1126	Respiratory Therapists	126	\$21.87	692	3.7	1.2	Associate degree			
99	29-1022	Oral and Maxillofacial Surgeons	10	\$75.86	778	4.2	2.8	First professional degree			
100		Transportation, Storage, and Distribution Managers	48	\$30.93	602	3.7	2.1	Work experience in a related occupation			
101	13-1011	Agents and Business Managers of Artists, Performers, and Athletes	109	\$22.07	448	9.9	9.9	Bachelor's or higher deg. + work exp.			
102		Social and Community Service Managers	87	\$28.62		2.7	1.6	Bachelor's degree			
103	29-1065	Pediatricians, General	23	\$86.69	626	3.0	2.5	First professional degree			

TERM: Training & Education Resource Model

Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1 Turn-SOC ONET Growth Open-Hourly Training / Education Requirements Occupational Title Rank over Score Code ings Wage Rate Ratio Work experience in a related \$28.68 3.2 1.2 13-1022 Wholesale and Retail Buyers, Except Farm Products 115 571 occupation 47-2044 Tile and Marble Setters 185 \$15.05 604 8.2 Long-term on-the-job training 104 106 | 13-1121 | Meeting and Convention Planners 79 \$20.22 642 4.9 Bachelor's degree 107 21-2011 Clergy 62 \$18.06 679 9.9 Master's degree First-Line Supervisors/Managers of Production and Work experience in a related 0.7 51-1011 \$23.29 651 108 232 1.4 **Operating Workers** occupation \$35.50 109 29-1131 Veterinarians 47 736 2.3 1.0 First professional degree Middle School Teachers, Except Special and Vocational 25-2022 \$18.69 633 1.9 Bachelor's degree 3.7 110 173 Education 49-3023 Automotive Service Technicians and Mechanics \$19.23 Postsecondary vocational training 619 686 1.6 111 11-3042 Training and Development Managers \$33.84 3.8 2.8 Bachelor's or higher deg. + work exp. 620 \$19.30 27-1025 Interior Designers 90 609 4.9 4.1 Associate degree 113 19-3031 Clinical, Counseling, and School Psychologists \$25.66 572 3.2 1.6 Doctoral degree 109 Work experience in a related 1.0 33-3021 Detectives and Criminal Investigators \$26.00 92 115 694 2.6 occupation 116 37-2021 Pest Control Workers \$12.53 9.9 7.8 Moderate-term on-the-job training 221 654 117 | 19-2043 Hydrologists \$25.86 6.2 21 660 4.3 Master's degree 118 29-2011 Medical and Clinical Laboratory Technologists \$23.35 1.2 Bachelor's degree 86 685 3.1 119 17-2061 Computer Hardware Engineers \$38.23 1.9 1.3 Bachelor's degree 48 639 120 | 29-1067 | Surgeons 18 \$92.46 2.4 2.0 First professional degree 773 121 49-9042 Maintenance and Repair Workers, General 863 \$15.38 627 2.8 1.6 Moderate-term on-the-job training 122 | 53-7032 | Excavating and Loading Machine and Dragline Operators 104 \$18.26 625 5.7 2.2 Moderate-term on-the-job training 2.2 123 11-3061 Purchasing Managers \$35.18 677 1.1 Bachelor's or higher deg. + work exp. 44 123 29-1023 Orthodontists \$88.60 4.3 2.7 First professional degree 6 702 125 47-2081 Drywall and Ceiling Tile Installers 751 \$14.83 347 7.5 3.7 Moderate-term on-the-job training 125 | 53-3021 Bus Drivers, Transit and Intercity 313 \$12.71 596 9.9 5.7 Moderate-term on-the-job training 17-2011 Aerospace Engineers 74 \$38.92 686 0.5 0.2 Bachelor's degree 128 | 25-1042 | Biological Science Teachers, Postsecondary 19 \$30.45 5.1 2.5 Doctoral degree 642 129 25-1052 Chemistry Teachers, Postsecondary 17 \$31.20 647 4.9 2.3 Doctoral degree 130 27-3031 Public Relations Specialists \$21.56 3.2 2.5 Bachelor's degree 126 539

TERM: Training & Education Resource Model

SOC

Code

25-2041

17-2111

13-1023

43-4161

51-8031

19-2031 Chemists

150 | 13-2041 Credit Analysts

41-9031 Sales Engineers

29-1041 Optometrists

154 29-1061 Anesthesiologists

27-3041 Editors

25-3021 Self-Enrichment Education Teachers

153 | 53-3033 | Truck Drivers, Light or Delivery Services

156 17-3025 Environmental Engineering Technicians

149 29-1127 Speech-Language Pathologists

155 | 11-9121 Natural Sciences Managers

49-3011 Aircraft Mechanics and Service Technicians

Rank

131

132

133

133

135

136

137

138

140

141

142

144

145

146

147

151

Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1 Turn-ONET Growth Open-Hourly Training / Education Requirements Occupational Title over Score ings Wage Rate Ratio Special Education Teachers, Preschool, Kindergarten, and \$18.46 5.2 106 594 Bachelor's degree Elementary School Health and Safety Engineers, Except Mining Safety \$32.95 28 633 3.6 Bachelor's degree **Engineers and Inspectors** 11-3041 Compensation and Benefits Managers \$28.68 3.3 Bachelor's or higher deg. + work exp. 581 40 47-2071 Paving, Surfacing, and Tamping Equipment Operators 68 \$19.57 4.8 Moderate-term on-the-job training 598 Purchasing Agents, Except Wholesale, Retail, and Farm Work experience in a related 200 \$23.51 533 2.6 1.1 Products occupation Human Resources Assistants, Except Payroll and \$17.01 Short-term on-the-job training 533 4.1 256 Timekeeping 25-2012 Kindergarten Teachers, Except Special Education 84 \$18.61 596 4.6 Bachelor's degree 15-1021 Computer Programmers 165 \$30.37 0.6 0.3 Bachelor's degree 571 21-1012 Educational, Vocational, and School Counselors 189 \$19.10 560 3.3 Master's degree Water and Liquid Waste Treatment Plant and System \$21.95 647 5.3 Long-term on-the-job training 46 Operators \$14.71 47-2082 Tapers 3.6 Moderate-term on-the-job training 516 311 7.4 47-2161 Plasterers and Stucco Masons \$13.22 627 4.8 3.0 Long-term on-the-job training 244 39-9031 Fitness Trainers and Aerobics Instructors 332 \$13.74 5.5 2.5 Postsecondary vocational training 570 31-9092 Medical Assistants \$13.76 2.7 Moderate-term on-the-job training 557 363 4.9

\$17.37

\$26.49

\$21.58

\$23.96

\$23.49

\$19.62

\$30.51

\$37.06

\$14.24

\$93.05

\$39.36

\$18.83

125

46

63

94

65

149

38

21

555

6

16

Work experience in a related

0.9 Postsecondary vocational training

1.9 Bachelor's or higher deg. + work exp.

4.8

1.1

occupation

2.3 Bachelor's degree

1.3 Master's degree

2.2 Bachelor's degree

0.9 Bachelor's degree

3.5 Associate degree

1.1 First professional degree 3.9 Short-term on-the-job training

2.7 First professional degree

Bachelor's degree

5.2

3.7

5.2

2.1

3.1

3.0

2.5

2.9

3.2

2.7

3.2

6.6

529

637

550

657

632

545

722

715

538

753

628

642

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1										
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		Turn- over Ratio	Training / Education Requirements			
157	21-1022	Medical and Public Health Social Workers	60	\$22.72	570	3.4	2.3	Bachelor's degree			
158	25-1194	Vocational Education Teachers, Postsecondary	90	\$22.64	636	2.5	1.2	Bachelor's or higher deg. + work exp.			
159	17-3027	Mechanical Engineering Technicians	48	\$21.13	683	3.3	1.7	Associate degree			
160	17-3023	Electrical and Electronic Engineering Technicians	141	\$23.89	617	1.2	0.6	Associate degree			
161	43-4051	Customer Service Representatives	2,224	\$14.72	531	2.8	1.9	Moderate-term on-the-job training			
162	25-1123	English Language and Literature Teachers, Postsecondary	58	\$20.12	577	4.8	2.2	Master's degree			
163	19-3051	Urban and Regional Planners	41	\$28.07	618	3.6	1.1	Master's degree			
163	35-1111	First-Line Supervisors/Managers of Food Preparation and Serving Workers	746	\$15.05	538	3.7	1.4	Work experience in a related occupation			
165	49-9051	Electrical Power-Line Installers and Repairers	43	\$29.55	668	2.5	0.8	Long-term on-the-job training			
166	39-9032	Recreation Workers	437	\$10.60	633	5.6	2.5	Short-term on-the-job training			
167	29-1081	Podiatrists	13	\$50.28	707	2.9	1.2	First professional degree			
168	43-6011	Executive Secretaries and Administrative Assistants	1,167	\$16.95	475	2.5	1.4	Moderate-term on-the-job training			
169	19-1042	Medical Scientists, Except Epidemiologists	9	\$29.64	697	3.8	2.6	Doctoral degree			
170	43-3011	Bill and Account Collectors	450	\$14.42	512	3.9	2.2	Short-term on-the-job training			
171	17-3031	Surveying and Mapping Technicians	81	\$18.50	615	5.3	1.3	Moderate-term on-the-job training			
172	21-2021	Directors, Religious Activities and Education	94	\$16.82	478	9.9	9.9	Bachelor's degree			
173	47-2031	Carpenters	656	\$16.90	662	0.1	0.1	Long-term on-the-job training			
174		Geoscientists, Except Hydrologists and Geographers	10	\$27.92	636	4.9	3.0	Master's degree			
175	 	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	210	\$14.51	549	4.8	2.2	Work experience in a related occupation			
176	49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	197	\$17.90	592	2.8	1.1	Postsecondary vocational training			
177	1 3 - 1 1 1 1 1	Compliance Officers, Except Agriculture, Construction, Health and Safety, and Tr	128	\$22.54	604	1.6	0.8	Long-term on-the-job training			
178	13-1081	Logisticians	37	\$33.77	635	1.4	1.0	Bachelor's degree			
179	37-3011	Landscaping and Groundskeeping Workers	2,869	\$9.89	516	7.4	3.4	Short-term on-the-job training			
180		Carpet Installers	147	\$12.25	585	9.9	7.4	Moderate-term on-the-job training			
181	29-2031	Cardiovascular Technologists and Technicians	35	\$20.50	657	3.6	2.1	Associate degree			
182	25-4021	Librarians	61	\$20.85	647	2.7	1.3	Master's degree			
183	29-2052	Pharmacy Technicians	262	\$13.59	492	4.8	4.1	Moderate-term on-the-job training			
184	49-9041	Industrial Machinery Mechanics	57	\$23.09	692	1.7	0.9	Long-term on-the-job training			

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1										
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		Turn- over Ratio	Training / Education Requirements			
185	43-5061	Production, Planning, and Expediting Clerks	218	\$19.39	537	2.5	1.1	Short-term on-the-job training			
186	33-3012	Correctional Officers and Jailers	232	\$16.01	678	1.9	1.0	Moderate-term on-the-job training			
187	47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	99	\$14.23	566	9.9	8.0	Moderate-term on-the-job training			
188		Forensic Science Technicians	22	\$23.77	618	4.3	1.9	Associate degree			
189	21-1091	Health Educators	33	\$22.56	619	3.3	2.1	Master's degree			
189	49-9052	Telecommunications Line Installers and Repairers	78	\$18.11	640	3.7	1.4	Long-term on-the-job training			
191	29-1064	Obstetricians and Gynecologists	7	\$66.19	736	2.1	1.8	First professional degree			
192	15-2031	Operations Research Analysts	51	\$27.45	605	2.1	1.0	Master's degree			
193	29-1031	Dietitians and Nutritionists	53	\$19.83	602	3.8	1.5	Bachelor's degree			
194		Vocational Education Teachers, Secondary School	26	\$21.72	717	3.8	1.4	Bachelor's or higher deg. + work exp.			
195	43-4151	Order Clerks	396	\$13.14	516	4.8	2.1	Short-term on-the-job training			
195	43-6012	Legal Secretaries	152	\$19.68	484	2.8	1.6	Postsecondary vocational training			
197	27-3043	Writers and Authors	111	\$18.30	541	3.3	2.1	Bachelor's degree			
198	11-9031	Education Administrators, Preschool and Child Care Center/Program	40	\$19.35	655	3.8	1.7	Bachelor's or higher deg. + work exp.			
199	17-2031	Biomedical Engineers	5	\$30.52	748	3.3	2.3	Bachelor's degree			
200	35-1011	Chefs and Head Cooks	121	\$18.96	617	2.9	0.8	Work experience in a related occupation			
201	29-1122	Occupational Therapists	40	\$21.66	626	2.6	2.2	Master's degree			
202	13-1072	Compensation, Benefits, and Job Analysis Specialists	65	\$23.62	534	2.3	1.8	Bachelor's degree			
203	11-3051	Industrial Production Managers	29	\$41.51	670	0.2	0.1	Work experience in a related occupation			
204	49-3042	Mobile Heavy Equipment Mechanics, Except Engines	83	\$20.75	635	2.1	1.1	Postsecondary vocational training			
205	39-1011	Gaming Supervisors	74	\$19.05	561	3.8	1.9	Work experience in a related occupation			
206	25-2042	Special Education Teachers, Middle School	34	\$19.11	610	5.0	2.4	Bachelor's degree			
207	17-3013	Mechanical Drafters	77	\$19.22	630	3.1	1.1	Postsecondary vocational training			
208	13-2071	Loan Counselors	40	\$20.99	547	3.8	2.6	Bachelor's degree			
209	41-3021	Insurance Sales Agents	156	\$24.79	577	-2.0	0.0	Bachelor's degree			
210	27-2022	Coaches and Scouts	69	\$15.33	663	3.7	2.1	Long-term on-the-job training			
211		Millwrights	33	\$19.84			1.8	Long-term on-the-job training			
211	53-2021	Air Traffic Controllers	18	\$42.70	654	1.8	0.8	Long-term on-the-job training			

Phoenix MSA TERM Ranking by Occupation '06-'08 TERM: Training & Education Resource Model

Rank based on comparative scores in openings, wag	es, skills,	growth, a	and tu	ırnover,	using w	veights 3, 3, 1, 1, 1	
					_		

		Rank based on comparative scores in openings, wage	es, skilis,	growth,	and tu	rnover, u	ising v	veignts 3, 3, 1, 1, 1
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score	Growth Rate	Turn- over Ratio	Training / Education Requirements
213	25-2043	Special Education Teachers, Secondary School	32	\$19.71	612	4.3	2.0	Bachelor's degree
214	4/-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	181	\$11.63	592	8.4	2.0	Short-term on-the-job training
215	29-2061	Licensed Practical and Licensed Vocational Nurses	142	\$19.73	734	-0.8	0.0	Postsecondary vocational training
216		Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2,393	\$8.97		6.5	3.4	Short-term on-the-job training
217		Travel Agents	128	\$15.46		4.7	2.2	Postsecondary vocational training
218	41-2031	Retail Salespersons	5,213	\$12.38		4.6	1.1	Short-term on-the-job training
219	29-2041	Emergency Medical Technicians and Paramedics	84	\$11.82		4.4	4.4	Postsecondary vocational training
220	13-2031	Budget Analysts	37	\$27.72		2.1	1.4	Bachelor's degree
221	17-3012	Electrical and Electronics Drafters	36	\$25.31	544	3.6	1.3	Postsecondary vocational training
222	43-3031	Bookkeeping, Accounting, and Auditing Clerks	1,020	\$15.31	468	2.2	1.3	Moderate-term on-the-job training
223	29-1066	Psychiatrists	3	\$79.75	658	2.3	2.0	First professional degree
224	29-2012	Medical and Clinical Laboratory Technicians	72	\$17.30	627	3.4	1.3	Associate degree
225	25-4012	Curators	10	\$22.49	686	4.5	2.2	Master's degree
226	19-2032	Materials Scientists	10	\$29.42	682	3.5	1.1	Bachelor's degree
227	17-2131	Materials Engineers	26	\$31.02	605	2.2	0.9	Bachelor's degree
228	47-3013	HelpersElectricians	274	\$10.17	589	7.5	1.8	Short-term on-the-job training
229	21-1093	Social and Human Service Assistants	109	\$15.12	581	3.4	2.2	Moderate-term on-the-job training
230	49-2011	Computer, Automated Teller, and Office Machine Repairers	52	\$19.75	648	1.5	1.4	Postsecondary vocational training
231	39-3012	Gaming and Sports Book Writers and Runners	745	\$8.09	460	9.9	4.5	Short-term on-the-job training
232	53-7051	Industrial Truck and Tractor Operators	201	\$12.90	638	2.7	1.5	Short-term on-the-job training
233	33-1011	First-Line Supervisors/Managers of Correctional Officers	37	\$22.56	682	2.1	0.8	Work experience in a related occupation
234	/ <_ /	Administrative Law Judges, Adjudicators, and Hearing Officers	12	\$36.39	524	2.7	2.3	Bachelor's or higher deg. + work exp.
235	53-2012	Commercial Pilots	22	\$24.15	729	2.4	1.0	Postsecondary vocational training
236	49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	22	\$28.13		2.2		Moderate-term on-the-job training
237		Driver/Sales Workers	319	\$10.42		4.1	2.7	Short-term on-the-job training
238	13-1071	Employment, Recruitment, and Placement Specialists	98	\$19.56	543	1.9	1.5	Bachelor's degree

TERM: Training & Education Resource Model

		Rank based on comparative scores in openings, wage	ising v	veights 3, 3, 1, 1, 1				
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		Turn- over Ratio	Training / Education Requirements
238	43-3051	Payroll and Timekeeping Clerks	253	\$15.56	463	3.1	1.2	Moderate-term on-the-job training
240	25-2011	Preschool Teachers, Except Special Education	221	\$10.55	530	4.8	4.8	Postsecondary vocational training
241	29-2033	Nuclear Medicine Technologists	7	\$30.15	701	2.4	1.6	Associate degree
242	29-2055	Surgical Technologists	26	\$18.50	647	3.1	2.7	Postsecondary vocational training
243	43-5032	Dispatchers, Except Police, Fire, and Ambulance	141	\$16.01	522	3.1	1.5	Moderate-term on-the-job training
244	5 K_	First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand	86	\$19.73	610	1.6	0.7	Work experience in a related occupation
245	13-2082	Tax Preparers	37	\$27.60	496	2.2	1.5	Moderate-term on-the-job training
246	27-2032	Choreographers	26	\$19.57	629	6.5	0.9	Work experience in a related occupation
247	29-2071	Medical Records and Health Information Technicians	125	\$14.29	516	3.5	2.8	Associate degree
248	31-2021	Physical Therapist Assistants	43	\$14.50	608	5.3	3.3	Associate degree
249	47-2061	Construction Laborers	626	\$13.76	566	1.3	1.0	Moderate-term on-the-job training
250	25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	3	\$27.15		3.8	2.0	Doctoral degree
251	31-1011	Home Health Aides	482	\$9.91	521	3.7	3.1	Short-term on-the-job training
252	43-4131	Loan Interviewers and Clerks	228	\$15.16	506	2.0	1.6	Short-term on-the-job training
253	11-9071	Gaming Managers	9	\$34.35	634	2.1	1.3	Work experience in a related occupation
254	29-2056	Veterinary Technologists and Technicians	79	\$13.51	582	3.9	3.4	Associate degree
255	51-4041	Machinists	123	\$17.73	606	1.4	0.6	Long-term on-the-job training
256	19-4091	Environmental Science and Protection Technicians, Including Health	10	\$20.68	682	4.1	1.9	Associate degree
257	43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	386	\$12.33	524	3.4	1.3	Short-term on-the-job training
258	43-4011	Brokerage Clerks	43	\$16.26	492	5.8	4.7	Moderate-term on-the-job training
259	25-9041	Teacher Assistants	713	\$9.69	494	3.9	2.2	Short-term on-the-job training
260	11-9011	Farm, Ranch, and Other Agricultural Managers	23	\$32.92	653	0.0	0.0	Bachelor's or higher deg. + work exp.
260		Child, Family, and School Social Workers	96	\$16.30	517	3.0	2.0	Bachelor's degree
262		Zoologists and Wildlife Biologists	7	\$30.21	653	3.2	1.0	Bachelor's degree
263	25-1122	Communications Teachers, Postsecondary	14	\$23.04	603	3.5	1.7	Doctoral degree

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1									
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		Turn- over Ratio	Training / Education Requirements		
264	39-1071	First-Line Supervisors/Managers of Personal Service Workers	183	\$17.21	505	2.1	0.9	Work experience in a related occupation		
265	27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	14	\$22.73	621	3.3	1.5	Long-term on-the-job training		
266	29-2091	Orthotists and Prosthetists	7	\$28.71	720	2.0	1.3	Bachelor's degree		
		Security Guards	811	\$10.72	592	2.6	1.1	Short-term on-the-job training		
268	39-5012	Hairdressers, Hairstylists, and Cosmetologists	571	\$12.39	520	2.5	1.4	Postsecondary vocational training		
269	47-2142	Paperhangers	21	\$19.96	317	6.3	5.8	Moderate-term on-the-job training		
270	35-2011	Cooks, Fast Food	1,176	\$8.11	515	5.0	1.3	Short-term on-the-job training		
271	43-6014	Secretaries, Except Legal, Medical, and Executive	697	\$13.14	483	2.2	1.2	Moderate-term on-the-job training		
272	13-1021	Purchasing Agents and Buyers, Farm Products	20	\$24.54	525	4.1	1.2	Work experience in a related occupation		
272	29-9011	Occupational Health and Safety Specialists	12	\$28.99	701	1.4	0.7	Bachelor's degree		
274	49-3092	Recreational Vehicle Service Technicians	11	\$19.11	617	9.6	2.0	Long-term on-the-job training		
275	25-1124	Foreign Language and Literature Teachers, Postsecondary	10	\$27.51	555	3.5	1.7	Master's degree		
276	29-9091	Athletic Trainers	13	\$16.86	678	4.8	2.6	Bachelor's degree		
277	75-1067	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	3	\$27.07	594	4.4	2.0	Doctoral degree		
277	51-5021	Job Printers	22	\$17.85	606	4.3	1.9	Long-term on-the-job training		
279	43-5031	Police, Fire, and Ambulance Dispatchers	41	\$17.66	608	3.0	1.5	Moderate-term on-the-job training		
280	53-3022	Bus Drivers, School	219	\$11.10	550	3.6	1.7	Short-term on-the-job training		
281	47-2151	Pipelayers	97	\$15.35	557	3.0	1.4	Moderate-term on-the-job training		
282	21-1013	Marriage and Family Therapists	11	\$25.88	606	2.9	1.3	Master's degree		
283	25-1022	Mathematical Science Teachers, Postsecondary	28	\$20.73	561	3.0	1.4	Master's degree		
284	43-4171	Receptionists and Information Clerks	920	\$11.78	476	2.8	1.1	Short-term on-the-job training		
285	1/-/151	Mining and Geological Engineers, Including Mining Safety Engineers	4	\$29.20	708	2.7	1.0	Bachelor's degree		
286	41-2022	Parts Salespersons	140	\$16.26	575	1.7	0.5	Moderate-term on-the-job training		
287	27-3042	Technical Writers	34	\$27.50	516	1.9	0.7	Bachelor's degree		
288	43-6013	Medical Secretaries	170	\$14.35	499	2.5		Postsecondary vocational training		
289	21-1011	Substance Abuse and Behavioral Disorder Counselors	22	\$22.42		2.7	1.3	Master's degree		
290	25-1081	Education Teachers, Postsecondary	11	\$21.19	613	3.4	1.6	Doctoral degree		

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1									
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		Turn- over Ratio	Training / Education Requirements		
290	33-9021	Private Detectives and Investigators	21	\$22.89	570	2.6	1.3	Work experience in a related occupation		
292	25-1121	Art, Drama, and Music Teachers, Postsecondary	13	\$20.24	608	3.5	1.6	Master's degree		
293		Billing and Posting Clerks and Machine Operators	255	\$14.68		1.8	1.1	Moderate-term on-the-job training		
294		Food Preparation Workers	1,191	\$10.14	517	3.3	0.7	Short-term on-the-job training		
295	47-4031	Fence Erectors	100	\$11.50		8.0	5.9	Moderate-term on-the-job training		
296	47-3012	HelpersCarpenters	258	\$11.24	569	3.2	0.8	Short-term on-the-job training		
297	21-1014	Mental Health Counselors	57	\$18.61	545	2.2	1.1	Master's degree		
298	43-9061	Office Clerks, General	1,603	\$12.80	456	1.3	0.6	Short-term on-the-job training		
299	49-3021	Automotive Body and Related Repairers	67	\$19.70	620	0.0	0.0	Long-term on-the-job training		
300	39-3091	Amusement and Recreation Attendants	342	\$8.98	457	5.5	1.5	Short-term on-the-job training		
301	27-1027	Set and Exhibit Designers	9	\$15.02	654	7.9	8.0	Bachelor's degree		
302	53-6051	Transportation Inspectors	12	\$34.28	583	1.1	0.5	Work experience in a related occupation		
303	27-2041	Music Directors and Composers	13	\$18.66	421	9.9	9.9	Bachelor's or higher deg. + work exp.		
304	11-9061	Funeral Directors	19	\$25.63	661	0.3	0.1	Associate degree		
305	25-4013	Museum Technicians and Conservators	12	\$16.01	613	6.3	3.0	Master's degree		
306	27-1026	Merchandise Displayers and Window Trimmers	87	\$11.69	532	3.8	3.2	Moderate-term on-the-job training		
306	49-3052	Motorcycle Mechanics	26	\$13.28	603	6.8	2.9	Long-term on-the-job training		
308	47-2051	Cement Masons and Concrete Finishers	165	\$16.82	560	-0.7	0.0	Moderate-term on-the-job training		
309	31-9011	Massage Therapists	102	\$17.53	482	2.0	0.9	Postsecondary vocational training		
310	25-1072	Nursing Instructors and Teachers, Postsecondary	17	\$18.75	691	2.7	1.3	Doctoral degree		
311	49-9094	Locksmiths and Safe Repairers	24	\$17.46	638	3.3	1.0	Moderate-term on-the-job training		
312	49-9098	HelpersInstallation, Maintenance, and Repair Workers	153	\$12.13	659	1.8	0.5	Short-term on-the-job training		
313	21-1023	Mental Health and Substance Abuse Social Workers	36	\$19.04	538	2.3	1.5	Master's degree		
314	17-3024	Electro-Mechanical Technicians	16	\$19.63	651	2.5	1.3	Associate degree		
315	43-5052	Postal Service Mail Carriers	113	\$20.95	454	-0.1	0.0	Short-term on-the-job training		
316	17-3026	Industrial Engineering Technicians	29	\$19.80	649	1.0	0.5	Associate degree		
317	19-3022	Survey Researchers	31	\$17.39	610	2.9	1.1	Bachelor's degree		
318	33-9011	Animal Control Workers	55	\$14.85	583	4.2	0.4	Moderate-term on-the-job training		
319	25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	4	\$22.91	587	3.7		Doctoral degree		

TERM: Training & Education Resource Model

SOC Code Occupational Title Open- ings Wage Score Rate Rate National Turn- over Ratio Training / Education	
320 51-3011 Bakers 165 \$11.10 575 2.9 1.2 Long-term on-the-job t 322 13-1031 Claims Adjusters, Examiners, and Investigators 49 \$23.31 538 -0.1 0.0 Long-term on-the-job t 323 43-4031 Court, Municipal, and License Clerks 71 \$15.98 457 3.0 1.4 Short-term on-the-job t 324 27-4032 Film and Video Editors 5 \$19.89 599 4.2 2.0 Bachelor's degree 325 31-2022 Physical Therapist Aides 53 \$11.07 571 4.7 2.9 Short-term on-the-job t 326 35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop 808 \$7.93 416 4.0 1.1 Short-term on-the-job t 327 41-2011 Cashiers 4,143 \$9.71 514 2.5 0.4 Short-term on-the-job t 328 49-9031 Home Appliance Repairers 42 \$18.79 412 3.1 1.3 Long-term on-the-job t 329 11-9081 Lodging Managers 20 \$25	Requirements
322 13-1031 Claims Adjusters, Examiners, and Investigators 49 \$23.31 538 -0.1 0.0 Long-term on-the-job t 323 43-4031 Court, Municipal, and License Clerks 71 \$15.98 457 3.0 1.4 Short-term on-the-job t 324 27-4032 Film and Video Editors 5 \$19.89 599 4.2 2.0 Bachelor's degree 325 31-2022 Physical Therapist Aides 53 \$11.07 571 4.7 2.9 Short-term on-the-job t 326 35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop 808 \$7.93 416 4.0 1.1 Short-term on-the-job t 327 41-2011 Cashiers 4,143 \$9.71 514 2.5 0.4 Short-term on-the-job t 328 49-9031 Home Appliance Repairers 42 \$18.79 412 3.1 1.3 Long-term on-the-job t 329 11-9081 Lodging Managers 20 \$25.40 585 0.6 0.4 Work experience in a reconcept on a coccupation	
323 43-4031 Court, Municipal, and License Clerks 71 \$15.98 457 3.0 1.4 Short-term on-the-job and the steer on the	raining
324 27-4032 Film and Video Editors 5 \$19.89 599 4.2 2.0 Bachelor's degree 325 31-2022 Physical Therapist Aides 53 \$11.07 571 4.7 2.9 Short-term on-the-job to the-job to	raining
325 31-2022 Physical Therapist Aides 53 \$11.07 571 4.7 2.9 Short-term on-the-job for the-job fo	training
326 35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop 808 \$7.93 416 4.0 1.1 Short-term on-the-job to the-job	
326 35-9031 Shop 808 \$7.93 416 4.0 1.1 Short-term on-the-job to the-job to th	training
328 49-9031 Home Appliance Repairers 42 \$18.79 412 3.1 1.3 Long-term on-the-job t 329 11-9081 Lodging Managers 20 \$25.40 585 0.6 0.4 Work experience in a resoccupation	training
329 11-9081 Lodging Managers 20 \$25.40 585 0.6 0.4 Work experience in a respectively.	training
329 11-9081 Lodging Managers 20 \$25.40 585 0.6 0.4 occupation	training
occupation	elated
220 27 1014 Multi Media Artists and Animators	
330 27-1014 Multi-Media Artists and Animators 25 \$22.77 566 1.2 0.6 Bachelor's degree	
331 25-1126 Philosophy and Religion Teachers, Postsecondary 5 \$20.53 571 4.3 2.0 Doctoral degree	
332 51-4121 Welders, Cutters, Solderers, and Brazers 165 \$14.66 521 1.2 0.4 Long-term on-the-job t	raining
333 31-1012 Nursing Aides, Orderlies, and Attendants 262 \$10.90 615 0.7 0.6 Postsecondary vocation	nal training
334 35-3022 Counter Attendants, Cafeteria, Food Concession, and 1,120 \$7.59 436 4.4 0.4 Short-term on-the-job	training
335 29-1121 Audiologists 3 \$25.17 669 2.4 1.0 First professional degree	ee
336 19-3091 Anthropologists and Archeologists 2 \$26.38 681 1.8 1.0 Master's degree	
337 39-9011 Child Care Workers 603 \$7.59 555 2.7 0.9 Short-term on-the-job	training
338 19-4031 Chemical Technicians 21 \$19.31 595 2.4 1.1 Associate degree	
339 41-2021 Counter and Rental Clerks 575 \$10.77 420 2.8 0.6 Short-term on-the-job	training
340 51-5023 Printing Machine Operators 67 \$14.88 492 2.9 1.3 Moderate-term on-the-	job training
341 39-9021 Personal and Home Care Aides 350 \$10.06 502 2.0 1.3 Short-term on-the-job	training
342 43-9021 Data Entry Keyers 209 \$13.52 512 1.2 0.5 Moderate-term on-the-	job training
343 25-1065 Political Science Teachers, Postsecondary 7 \$22.12 580 3.1 1.3 Doctoral degree	
344 35-2014 Cooks, Restaurant 619 \$10.31 530 1.7 0.4 Long-term on-the-job t	raining
345 25-9011 Audio-Visual Collections Specialists 4 \$16.89 593 5.4 3.0 Moderate-term on-the-	job training
346 49-9043 Maintenance Workers, Machinery 31 \$16.30 626 2.2 0.9 Short-term on-the-job	training
347 27-4011 Audio and Video Equipment Technicians 81 \$13.78 654 0.9 0.4 Long-term on-the-job t	training
348 25-1066 Psychology Teachers, Postsecondary 5 \$20.99 590 3.2 1.5 Doctoral degree	
349 19-1031 Conservation Scientists 2 \$28.42 705 0.8 0.3 Bachelor's degree	

TERM: Training & Education Resource Model

Rank SOC Code	Occupational Title	Open-				Turn-	
Couc		ings	Hourly Wage	ONET Score	Growth Rate	over Ratio	Training / Education Requirements
350 43-3071	Tellers	134	\$11.54	471	4.6	0.8	Short-term on-the-job training
351 45-4021	Fallers	7	\$16.75	478	9.9	9.9	Moderate-term on-the-job training
352 15-2041	Statisticians	6	\$31.87	603	0.2	0.1	Master's degree
353 51-2092	Team Assemblers	421	\$11.17	531	0.8	0.3	Moderate-term on-the-job training
354 51-2041	Structural Metal Fabricators and Fitters	69	\$13.85	538	2.7	1.2	Moderate-term on-the-job training
355 35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	2,799	\$8.07	458	2.5	0.5	Short-term on-the-job training
356 39-3011	Gaming Dealers	157	\$9.09	474	4.9	1.2	Postsecondary vocational training
357 43-4111	Interviewers, Except Eligibility and Loan	150	\$12.11	481	2.6	1.0	Short-term on-the-job training
358 39-5094	Skin Care Specialists	52	\$14.18	521	2.7	1.5	Postsecondary vocational training
359 27-4012	Broadcast Technicians	5	\$17.50	633	4.1	1.5	Associate degree
360 17-3021	Aerospace Engineering and Operations Technicians	2	\$26.47	719	0.7	0.3	Associate degree
361 19-1013	Soil and Plant Scientists	1	\$35.59	635	0.0	0.0	Bachelor's degree
361 25-1067	Sociology Teachers, Postsecondary	3	\$21.14	578	3.4	1.5	Doctoral degree
363 39-3031	Ushers, Lobby Attendants, and Ticket Takers	174	\$6.94	427	8.9	1.0	Short-term on-the-job training
364 17-1021	Cartographers and Photogrammetrists	12	\$24.75	562	1.5	0.4	Bachelor's degree
365 53-7021	Crane and Tower Operators	12	\$19.50	649	1.7	8.0	Long-term on-the-job training
366 27-3091	Interpreters and Translators	21	\$16.47	527	2.6	2.2	Long-term on-the-job training
367 29-2081	Opticians, Dispensing	28	\$14.80	534	3.1	1.9	Long-term on-the-job training
368 25-1125	History Teachers, Postsecondary	5	\$22.22	575	2.8	1.3	Doctoral degree
369 47-2132	Insulation Workers, Mechanical	21	\$14.73	304	7.2	2.5	Moderate-term on-the-job training
370 21-1015	Rehabilitation Counselors	36	\$14.05	579	2.8	1.3	Master's degree
371 53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,445	\$10.98	468	-0.5	0.0	Short-term on-the-job training
372 51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	133	\$14.45	522	0.1	0.0	Moderate-term on-the-job training
373 51-3021	Butchers and Meat Cutters	63	\$16.07	502	1.6	0.7	Long-term on-the-job training
374 43-5053	Machine Operators	56	\$19.88	427	-0.1	0.0	Short-term on-the-job training
375 49-2092	Electric Motor, Power Tool, and Related Repairers	24	\$11.55	640	4.0	1.8	Postsecondary vocational training
	Cooks, Institution and Cafeteria	184	\$10.97	522	2.2	0.5	Moderate-term on-the-job training
377 39-1012	Slot Key Persons	51	\$11.92	545	3.2	1.6	Postsecondary vocational training
378 23-1022	Arbitrators, Mediators, and Conciliators	3	\$26.33	451	2.2	2.0	Bachelor's or higher deg. + work exp.
379 43-9031	Desktop Publishers	9	\$16.18	499	5.3	2.6	Postsecondary vocational training

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1							
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score	Growth Rate	Turn- over Ratio	Training / Education Requirements
380	47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco Masons	91	\$9.97	304	6.6	1.6	Short-term on-the-job training
380		Ambulance Drivers and Attendants, Except Emergency Medical Technicians	17	\$12.16	617	3.7	3.7	Moderate-term on-the-job training
382	37-2012	Maids and Housekeeping Cleaners	594	\$8.59	420	1.9	0.9	Short-term on-the-job training
383	19-3041	Sociologists	4	\$29.29	566	1.2	0.3	Master's degree
384	47-4091	Segmental Pavers	9	\$11.86	624	6.8	4.7	Moderate-term on-the-job training
385	49-2097	Electronic Home Entertainment Equipment Installers and Repairers	68	\$12.39	562	2.2	1.2	Postsecondary vocational training
386	51-9081	Dental Laboratory Technicians	15	\$19.59	565	1.9	0.9	Long-term on-the-job training
387	27-4021	Photographers	41	\$15.87	658	-0.9	0.0	Long-term on-the-job training
388	47-2131	Insulation Workers, Floor, Ceiling, and Wall	47	\$10.81	304	7.1	2.4	Moderate-term on-the-job training
389	35-3031	Waiters and Waitresses	2,180	\$8.39	474	0.6	0.1	Short-term on-the-job training
390	33-9031	Gaming Surveillance Officers and Gaming Investigators	25	\$13.88	582	3.1	1.3	Moderate-term on-the-job training
391	43-5041	Meter Readers, Utilities	32	\$20.32	550	-2.5	0.0	Short-term on-the-job training
392	43-5071	Shipping, Receiving, and Traffic Clerks	401	\$10.58	551	-2.7	0.0	Short-term on-the-job training
393	51-8021	Stationary Engineers and Boiler Operators	7	\$21.63	611	1.2	0.8	Long-term on-the-job training
394	47-2021	Brickmasons and Blockmasons	58	\$17.03	550	-3.7	0.0	Long-term on-the-job training
395	51-2022	Electrical and Electronic Equipment Assemblers	105	\$13.48	586	0.0	0.0	Short-term on-the-job training
396	43-5081	Stock Clerks and Order Fillers	1,349	\$10.29	441	-0.9	0.0	Short-term on-the-job training
397	49-3093	Tire Repairers and Changers	120	\$12.17	564	1.2	0.2	Short-term on-the-job training
398	11-9131	Postmasters and Mail Superintendents	1	\$33.74	587	0.0	0.0	Work experience in a related occupation
399	43-5021	Couriers and Messengers	111	\$11.22	509	2.5	1.0	Short-term on-the-job training
400	33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	143	\$9.33	530	3.6	0.3	Short-term on-the-job training
401	47-2221	Structural Iron and Steel Workers	29	\$15.66	709	-0.1	0.0	Long-term on-the-job training
402	31-2011	Occupational Therapist Assistants	2	\$21.18	649	1.4	1.0	Associate degree
403	13-2053	Insurance Underwriters	22	\$23.04	503	-0.3	0.0	Bachelor's degree
403	23-2093	Title Examiners, Abstractors, and Searchers	22	\$19.97	509	0.5	0.6	Moderate-term on-the-job training
405	15-2011	Actuaries	4	\$34.63	556	-2.4	0.0	Bachelor's or higher deg. + work exp.
406	51-6011	Laundry and Dry-Cleaning Workers	271	\$8.84	502	1.8	0.6	Moderate-term on-the-job training

TERM: Training & Education Resource Model

Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1 Turn-SOC ONET Growth Open-Hourly Occupational Title Training / Education Requirements Rank over Score Code ings Wage Rate Ratio 39-5092 Manicurists and Pedicurists 3.1 Postsecondary vocational training 407 116 \$9.20 439 1.7 Work experience in a related 1.7 408 43-4141 New Accounts Clerks 10 \$16.29 487 4.4 occupation 51-4061 Model Makers, Metal and Plastic \$14.35 2.0 Moderate-term on-the-job training 6 582 5.9 35-9011 Dining Room and Cafeteria Attendants and Bartender 592 \$7.26 1.9 Short-term on-the-job training 435 410 Electronic Equipment Installers and Repairers, Motor 49-2096 \$16.01 2.0 Postsecondary vocational training 411 9 495 4.6 Vehicles 51-9122 Painters, Transportation Equipment 45 \$16.73 535 0.1 Long-term on-the-job training 0.4 | Short-term on-the-job training 35-2015 Cooks, Short Order 160 \$10.88 518 1.5 35-3011 Bartenders 1.1 0.3 Short-term on-the-job training 296 \$9.44 507 414 27-4014 Sound Engineering Technicians \$13.73 2.4 0.9 Postsecondary vocational training 19 688 415 35-9021 Dishwashers \$7.38 464 1.0 0.2 Short-term on-the-job training 619 416 Petroleum Pump System Operators, Refinery Operators, 51-8093 \$22.50 417 6 435 2.8 1.0 Long-term on-the-job training and Gaugers 25-4031 Library Technicians 78 \$12.36 Postsecondary vocational training 551 1.8 418 Rolling Machine Setters, Operators, and Tenders, Metal 51-4023 19 2.9 Moderate-term on-the-job training 419 \$11.88 655 and Plastic 47-4051 Highway Maintenance Workers 420 20 \$14.57 623 1.4 Moderate-term on-the-job training Mail Clerks and Mail Machine Operators, Except Postal 43-9051 \$10.92 395 2.0 Short-term on-the-job training 421 146 Service Associate degree 19-4021 Biological Technicians \$17.30 595 2.3 422 6 Computer-Controlled Machine Tool Operators, Metal and 423 51-4011 \$16.08 642 0.9 Moderate-term on-the-job training 15 Plastic 37-3012 Pesticide Handlers, Sprayers, and Applicators, Vegetation \$12.58 1.9 Moderate-term on-the-job training 10 609 3.9 425 31-9094 Medical Transcriptionists 1.0 Postsecondary vocational training 1.8 36 \$15.61 433 426 51-7011 Cabinetmakers and Bench Carpenters 49 \$14.37 592 -1.5 0.0 Long-term on-the-job training 51-3092 Food Batchmakers \$9.06 2.9 1.1 Short-term on-the-job training 427 89 525 49-3041 Farm Equipment Mechanics 24 \$13.24 2.8 1.4 Postsecondary vocational training 545 429 51-4111 Tool and Die Makers \$20.74 0.3 0.2 Long-term on-the-job training 8 589 430 19-4093 Forest and Conservation Technicians 10 \$15.72 1.9 0.8 Associate degree 647 431 51-6031 Sewing Machine Operators 52 \$10.34 2.6 2.4 Moderate-term on-the-job training 440

0.0 Moderate-term on-the-job training

432 27-4031 Camera Operators, Television, Video, and Motion Picture

\$22.31

619

0.0

TERM: Training & Education Resource Model

Rank SOC Code Occupational Title Openings Hourly Wage ONET Score Growth Rate Turnover Ratio 433 51-9082 Medical Appliance Technicians 4 \$17.45 667 1.7 0.8 434 47-2022 Stonemasons 21 \$15.09 615 0.7 0.5 435 51-9111 Packaging and Filling Machine Operators and Tenders 58 \$11.70 644 -0.2 0.0 436 53-7011 Conveyor Operators and Tenders 21 \$12.02 645 2.8 1.0 437 43-4061 Eligibility Interviewers, Government Programs 38 \$16.36 482 0.2 0.1 438 53-7061 Cleaners of Vehicles and Equipment 324 \$8.58 505 -0.1 0.0 439 53-7081 Refuse and Recyclable Material Collectors 32 \$16.13 519 0.4 0.1 440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9	Training / Education Requirements Long-term on-the-job training Long-term on-the-job training Short-term on-the-job training Moderate-term on-the-job training Short-term on-the-job training Short-term on-the-job training Short-term on-the-job training
434 47-2022 Stonemasons 21 \$15.09 615 0.7 0.5 435 51-9111 Packaging and Filling Machine Operators and Tenders 58 \$11.70 644 -0.2 0.0 436 53-7011 Conveyor Operators and Tenders 21 \$12.02 645 2.8 1.0 437 43-4061 Eligibility Interviewers, Government Programs 38 \$16.36 482 0.2 0.1 438 53-7061 Cleaners of Vehicles and Equipment 324 \$8.58 505 -0.1 0.0 439 53-7081 Refuse and Recyclable Material Collectors 32 \$16.13 519 0.4 0.1 440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9 441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	Long-term on-the-job training Short-term on-the-job training Short-term on-the-job training Moderate-term on-the-job training Short-term on-the-job training Short-term on-the-job training
435 51-9111 Packaging and Filling Machine Operators and Tenders 58 \$11.70 644 -0.2 0.0 436 53-7011 Conveyor Operators and Tenders 21 \$12.02 645 2.8 1.0 437 43-4061 Eligibility Interviewers, Government Programs 38 \$16.36 482 0.2 0.1 438 53-7061 Cleaners of Vehicles and Equipment 324 \$8.58 505 -0.1 0.0 439 53-7081 Refuse and Recyclable Material Collectors 32 \$16.13 519 0.4 0.1 440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9 441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	Short-term on-the-job training Short-term on-the-job training Moderate-term on-the-job training Short-term on-the-job training Short-term on-the-job training
436 53-7011 Conveyor Operators and Tenders 21 \$12.02 645 2.8 1.0 437 43-4061 Eligibility Interviewers, Government Programs 38 \$16.36 482 0.2 0.1 438 53-7061 Cleaners of Vehicles and Equipment 324 \$8.58 505 -0.1 0.0 439 53-7081 Refuse and Recyclable Material Collectors 32 \$16.13 519 0.4 0.1 440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9 441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	Short-term on-the-job training Moderate-term on-the-job training Short-term on-the-job training Short-term on-the-job training
437 43-4061 Eligibility Interviewers, Government Programs 38 \$16.36 482 0.2 0.1 438 53-7061 Cleaners of Vehicles and Equipment 324 \$8.58 505 -0.1 0.0 439 53-7081 Refuse and Recyclable Material Collectors 32 \$16.13 519 0.4 0.1 440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9 441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	Moderate-term on-the-job training Short-term on-the-job training Short-term on-the-job training
438 53-7061 Cleaners of Vehicles and Equipment 324 \$8.58 505 -0.1 0.0 439 53-7081 Refuse and Recyclable Material Collectors 32 \$16.13 519 0.4 0.1 440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9 441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	Short-term on-the-job training Short-term on-the-job training
439 53-7081 Refuse and Recyclable Material Collectors 32 \$16.13 519 0.4 0.1 440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9 441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	Short-term on-the-job training
440 39-2021 Nonfarm Animal Caretakers 121 \$8.94 516 2.0 0.9 441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	
441 47-2181 Roofers 111 \$14.17 351 -7.0 0.0 442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	
442 51-3022 Meat, Poultry, and Fish Cutters and Trimmers 51 \$11.30 486 2.6 1.1	Short-term on-the-job training
, y,	Moderate-term on-the-job training
	Short-term on-the-job training
443 33-3011 Bailiffs 14 \$15.17 480 2.8 1.5	Moderate-term on-the-job training
443 53-3041 Taxi Drivers and Chauffeurs 56 \$9.65 522 1.6 2.0	Short-term on-the-job training
44549-3053Outdoor Power Equipment and Other Small Engine Mechanics13\$13.913994.11.8	Moderate-term on-the-job training
446 31-9093 Medical Equipment Preparers 15 \$12.42 550 3.3 1.9	Short-term on-the-job training
447 43-4121 Library Assistants, Clerical 46 \$12.83 509 2.3 0.5	Short-term on-the-job training
448 33-3041 Parking Enforcement Workers 3 \$12.74 525 6.4 5.0	Short-term on-the-job training
449 19-4011 Agricultural and Food Science Technicians 1 \$24.76 597 -2.1 0.0	Associate degree
450 43-5011 Cargo and Freight Agents 32 \$15.93 472 1.0 0.5	Moderate-term on-the-job training
451 43-9081 Proofreaders and Copy Markers 50 \$8.47 458 3.7 1.6	Short-term on-the-job training
452 51-6052 Tailors, Dressmakers, and Custom Sewers 22 \$13.46 555 2.0 1.2	Long-term on-the-job training
453 51-8091 Chemical Plant and System Operators 2 \$18.00 701 0.9 0.3	Long-term on-the-job training
454 31-9096 Veterinary Assistants and Laboratory Animal Caretakers 37 \$10.57 525 2.7 1.5	Short-term on-the-job training
455 53-7064 Packers and Packagers, Hand 230 \$8.04 439 0.4 0.2	Short-term on-the-job training
456 13-1032 Insurance Appraisers, Auto Damage 3 \$23.63 576 -1.8 0.0	Long-term on-the-job training
457 43-9011 Computer Operators 53 \$14.21 508 -0.5 0.0	Moderate-term on-the-job training
458 43-4041 Credit Authorizers, Checkers, and Clerks 153 \$11.21 485 -7.1 0.0	Short-term on-the-job training
459 31-1013 Psychiatric Aides 18 \$10.35 576 3.0 2.5	Short-term on-the-job training
460 27-3011 Radio and Television Announcers 3 \$18.10 563 2.5 1.0	Long-term on-the-job training
461 51-9023 Mixing and Blending Machine Setters, Operators, and Tenders 27 \$13.12 633 0.5 0.2	Moderate-term on-the-job training
462 41-9041 Telemarketers 182 \$10.73 403 -0.8 0.0	Short-term on-the-job training

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1							
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score	Growth Rate	Turn- over Ratio	Training / Education Requirements
463	25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	16	\$18.10	558	-0.3	0.0	Bachelor's degree
464	43-4081	Hotel, Motel, and Resort Desk Clerks	124	\$10.01	520	0.4	0.1	Short-term on-the-job training
465	49-3091	Bicycle Repairers	27	\$9.75	614	3.4	0.7	Moderate-term on-the-job training
466	43-2011	Switchboard Operators, Including Answering Service	103	\$10.94	421	1.2	0.5	Short-term on-the-job training
467	51-9198	HelpersProduction Workers	175	\$10.22	495	-3.7	0.0	Short-term on-the-job training
468	53-6031	Service Station Attendants	91	\$9.70	565	0.5	0.1	Short-term on-the-job training
469	51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	13	\$13.23	676	1.3	0.5	Moderate-term on-the-job training
470	43-3061	Procurement Clerks	20	\$16.45	506	0.6	0.3	Short-term on-the-job training
471	49-3022	Automotive Glass Installers and Repairers	8	\$18.97	599	-1.0	0.0	Long-term on-the-job training
472	43-9022	Word Processors and Typists	52	\$13.82	492	-0.7	0.0	Moderate-term on-the-job training
473	51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	33	\$13.86	585	-1.3	0.0	Moderate-term on-the-job training
474	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	13	\$15.50	652	-1.9	0.0	Moderate-term on-the-job training
475	51-5022	Prepress Technicians and Workers	26	\$13.30	534	1.5	0.7	Postsecondary vocational training
476	47-4041	Hazardous Materials Removal Workers	17	\$14.00	627	0.3	0.1	Moderate-term on-the-job training
477	45-1011	First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers	11	\$17.52	592	-1.8	0.0	Work experience in a related occupation
478	29-2053	Psychiatric Technicians	17	\$14.22	591	0.6	0.5	Moderate-term on-the-job training
479	// <- 5	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	23	\$15.09	510	0.4	0.2	Short-term on-the-job training
480	47-2121	Glaziers	27	\$16.11	504	-2.2	0.0	Long-term on-the-job training
481	29-2054	Respiratory Therapy Technicians	1	\$16.68	730	0.0	0.0	Associate degree
482	/I h _ /I l U / I	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	171	\$7.84	460	-1.4	0.0	Short-term on-the-job training
	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and	46	\$12.74	545	-3.3	0.0	Moderate-term on-the-job training
484	53-6021	Parking Lot Attendants	102	\$9.47	530	-0.5	0.0	Short-term on-the-job training
485	51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	45	\$9.57		2.3	1.0	Moderate-term on-the-job training
486	43-4071	File Clerks	118	\$10.35	475	-2.8	0.0	Short-term on-the-job training

TERM: Training & Education Resource Model

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1							
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		Turn- over Ratio	Training / Education Requirements
487	35-3041	Food Servers, Nonrestaurant	106	\$8.97	478	0.4	0.1	Short-term on-the-job training
488	27-3022	Reporters and Correspondents	10	\$15.44	529	1.5	0.7	Bachelor's or higher deg. + work exp.
489	49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	19	\$14.72	384	1.6	0.7	Moderate-term on-the-job training
490	43-9041	Insurance Claims and Policy Processing Clerks	31	\$14.86	448	-1.6	0.0	Moderate-term on-the-job training
491	29-1125	Recreational Therapists	4	\$17.30	575	0.3	0.1	Bachelor's degree
492	47-2171	Reinforcing Iron and Rebar Workers	19	\$17.53	362	-3.9	0.0	Long-term on-the-job training
493	49-3051	Motorboat Mechanics	9	\$13.11	405	3.4	1.4	Long-term on-the-job training
494	39-6021	Tour Guides and Escorts	12	\$11.54	446	3.8	1.3	Moderate-term on-the-job training
495	51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plasti	8	\$17.03	555	-1.2	0.0	Moderate-term on-the-job training
496	27-1023	Floral Designers	22	\$11.38	545	1.1	0.9	Moderate-term on-the-job training
497	41-2012	Gaming Change Persons and Booth Cashiers	34	\$8.80	487	3.4	0.5	Short-term on-the-job training
498	39-6011	Baggage Porters and Bellhops	48	\$10.48	451	1.0	0.3	Short-term on-the-job training
499	47-2043	Floor Sanders and Finishers	5	\$10.05	354	5.1	3.5	Moderate-term on-the-job training
500	47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	7	\$13.73	656	0.0	0.0	Moderate-term on-the-job training
501	51-2023	Electromechanical Equipment Assemblers	23	\$13.89	458	-0.1	0.0	Short-term on-the-job training
502		Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Ope	11	\$13.97	605	-8.6	0.0	Moderate-term on-the-job training
503	51-4194	Tool Grinders, Filers, and Sharpeners	6	\$16.23	567	-2.2	0.0	Moderate-term on-the-job training
504	29-2051	Dietetic Technicians	16	\$9.44	432	2.6	2.2	Moderate-term on-the-job training
505	51-5011	Bindery Workers	19	\$12.48	509	1.1	0.4	Short-term on-the-job training
506	39-3093	Locker Room, Coatroom, and Dressing Room Attendants	26	\$9.14	397	3.1	0.9	Short-term on-the-job training
507	47-5041	Continuous Mining Machine Operators	7	\$15.88	345	1.6	0.6	Moderate-term on-the-job training
508	51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	28	\$11.01	578	-3.3	0.0	Moderate-term on-the-job training
509	51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	10	\$12.53	525	1.8	0.8	Moderate-term on-the-job training
	51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	3	\$15.52		-11.6	0.0	Moderate-term on-the-job training
511	51-9196	Paper Goods Machine Setters, Operators, and Tenders	12	\$13.89	558	-1.2	0.0	Moderate-term on-the-job training

TERM: Training & Education Resource Model

Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1

	Rank based on comparative scores in openings, wages, skills, growth, and turnover, using weights 3, 3, 1, 1, 1							
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		Turn- over Ratio	Training / Education Requirements
512	27-2023	Umpires, Referees, and Other Sports Officials	22	\$13.35	497	-3.1	0.0	Long-term on-the-job training
513	51-4051	Metal-Refining Furnace Operators and Tenders	3	\$15.84	605	-15.4	0.0	Moderate-term on-the-job training
514	43-9071	Office Machine Operators, Except Computer	29	\$13.34		-2.8	0.0	Short-term on-the-job training
515		Pharmacy Aides	8	\$11.21	525	2.2	1.3	Short-term on-the-job training
516	51-3023	Slaughterers and Meat Packers	15	\$10.57	387	2.7	1.2	Moderate-term on-the-job training
517	51-9123	Painting, Coating, and Decorating Workers	19	\$11.48		1.2	0.5	Short-term on-the-job training
518	51-9031	Cutters and Trimmers, Hand	9	\$11.93	357	2.6	1.3	Short-term on-the-job training
519	47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	46	\$11.15	354	-3.1	0.0	Short-term on-the-job training
520		Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	7	\$15.79	510	-0.6	0.0	Moderate-term on-the-job training
521	51-3093	Food Cooking Machine Operators and Tenders	16	\$10.89	547	1.1	0.5	Short-term on-the-job training
522	51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	7	\$13.15	601	-1.3	0.0	Moderate-term on-the-job training
523	51-9132	Photographic Processing Machine Operators	33	\$10.33	519	-2.4	0.0	Short-term on-the-job training
524	51-6041	Shoe and Leather Workers and Repairers	9	\$11.41	418	2.8	0.9	Long-term on-the-job training
		Upholsterers	18	\$11.81		0.9	0.3	Long-term on-the-job training
		Foundry Mold and Coremakers	5	\$14.50		-0.9	0.0	Moderate-term on-the-job training
527		Concierges	13	\$10.69	532	1.4	0.4	Moderate-term on-the-job training
528	51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and T	10	\$13.65	510	-0.5	0.0	Moderate-term on-the-job training
529	51-9131	Photographic Process Workers	14	\$11.67		-1.4	0.0	Moderate-term on-the-job training
530	45-2091	Agricultural Equipment Operators	31	\$7.83	567	-2.1	0.0	Moderate-term on-the-job training
531	21-411/	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal	14	\$13.33	488	-4.4	0.0	Moderate-term on-the-job training
532	45-2093	Farmworkers, Farm and Ranch Animals	19	\$12.64	397	-0.6	0.0	Short-term on-the-job training
533	51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	16	\$11.34	556	-6.7	0.0	Moderate-term on-the-job training
534	51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	3	\$16.16	361	-0.2	0.0	Moderate-term on-the-job training
	51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	8	\$12.58		1.1	0.5	Moderate-term on-the-job training
536	51-6021	Pressers, Textile, Garment, and Related Materials	36	\$7.75	334	0.4	0.3	Short-term on-the-job training

Page 20 of 23

TERM: Training & Education Resource Model

	Trin-								
Rank	SOC Code	Occupational Title	Open- ings	Hourly Wage	ONET Score		over Ratio	Training / Education Requirements	
537	39-6032	Transportation Attendants, Except Flight Attendants and Baggage Porters	6	\$9.44	422	2.4	2.0	Short-term on-the-job training	
538	51-9191	Cementing and Gluing Machine Operators and Tenders	5	\$12.22	602	-2.5	0.0	Moderate-term on-the-job training	
539	51-4052	Pourers and Casters, Metal	1	\$13.89	551	0.0	0.0	Moderate-term on-the-job training	
540	51-9022	Grinding and Polishing Workers, Hand	19	\$11.79	325	-1.2	0.0	Moderate-term on-the-job training	
541	47-5021	Earth Drillers, Except Oil and Gas	2	\$13.28	495	1.1	0.5	Moderate-term on-the-job training	
542	71-4071	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	8	\$11.57	562	-0.9	0.0	Moderate-term on-the-job training	
543	51-9071	Jewelers and Precious Stone and Metal Workers	6	\$14.16	426	-1.8	0.0	Postsecondary vocational training	
544	51-7021	Furniture Finishers	10	\$13.05	372	-0.9	0.0	Long-term on-the-job training	
545	コーΔロノノ	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	3	\$12.76	568	-2.1	0.0	Moderate-term on-the-job training	
546	53-7063	Machine Feeders and Offbearers	22	\$10.30	411	-1.4	0.0	Short-term on-the-job training	
547	49-9064	Watch Repairers	12	\$9.36	367	1.9	0.7	Long-term on-the-job training	
548		Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	3	\$12.70	493	0.0	0.0	Short-term on-the-job training	
549	51-2021	Coil Winders, Tapers, and Finishers	8	\$10.79	481	-1.7	0.0	Short-term on-the-job training	
550	39-3021	Motion Picture Projectionists	3	\$8.59	550	0.0	0.0	Short-term on-the-job training	
551	45-2041	Graders and Sorters, Agricultural Products	9	\$9.89	365	-3.7	0.0	Work experience in a related occupation	
552	151-9197	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	2	\$9.44	342	1.1	0.3	Moderate-term on-the-job training	

	TERM (Training & Education Resource Model) Occupations Report							
	Column	Explanation						
А	Rank	This is the rank of the occupation based on comparative scores in five areas, openings, wages, skills, growth rate, and turn over ratio as shown in columns D through H. Tie scores get tie ranks.						
В	SOC Code	Standard Occupational Classification system. SOC is used by federal agencies collecting occupational data, providing a means to compare occupational data across agencies. It is designed to cover all occupations in which work is performed for pay or profit, reflecting the current occupational structure in the United States. For more info on SOC, see: http://www.bls.gov/soc/socguide.htm						
С	SOC Title	The title of the occupation, as assigned by the Standard Occupational Classification system (SOC).						
D	Openings	Average number of projected openings (from growth + turnover) expected per year for the occupation. Projected openings based on 2006-2008 occupation projections.						
E	Hourly Wage	Based on the average of the wage of the occupation. Wages based on 2006 Occupational Employment Statistics (OES) survey. Hourly wages were calculated by dividing annual wages by 2080 hours (40 hours X 52 weeks).						
F	O*NET Score	O*NET is an acronym for the Occupational Information Network (http://www.onetcenter.org/). This data is a measure of the skills, knowledge, and abilities required for the occupation. The numerical score for each comparative occupational descriptor in the O*NET Knowledge, Skills, and Abilities data files were summed for each occupation and then ranked by percentile.						
G	Growth Rate	The two-year projected rate of growth in employment of the occupation. This number could be negative but usually is not. Occupational growth rate is from the 2006-2008 Occupational Projections produced by the AzDES Research Administration.						
Н	Turnover Ratio	This is the projected number of annual openings due to growth divided by the projected number of annual openings due to replacement (like retirements, quits, promotions, etc.). Higher ratios indicate lower turnover. Based on the 2006-2008 occupational projections data.						
I	Education / Training Requirements	The job training and educational levels as assigned by the Bureau of Labor Statistics (BLS). See detailed descriptions of the BLS codes on page two of these notes. Note that a higher code number indicates a lower amount of education or training time.						

Calcula	ation method
1	Hourly wages were calculated by dividing annual wages by 2080 hours (40 hours X 52 weeks).
2	In this iteration of the TERM, there were no restrictions on the BLS Training and Educational code. Note that the lower the training and educational time requirement, the higher the code numbers (see below).
3	Percentiles were calculated for each statistic shown. In case of a tie, the same percentile was assigned to all SOC's involved in the tie.
4	The following formula determined the score for each SOC: (3 x openings percentile + 3 x wage percentile + O*NET percentile + growth percentile + turnover percentile) / 9
BLS (B	ureau of Labor Statistics) Education and Training Codes
1	First professional degree
2	Doctoral degree
3	Master's degree
4	Bachelor's or higher degree, plus work experience
5	Bachelor's degree
6	Associate degree
7	Post-secondary vocational training
8	Work experience in related occupation
9	Long-term on-the-job training
10	Moderate-term on-the-job training
11	Short-term on-the-job training
Source	is a second of the second of t
1	Openings and wage data are produced by the Arizona Department of Economic Security, Research Administration, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics. Wages are from the 2006 Occupational Employment Statistics (OES) survey, and openings are from the 2006-2008 occupational employment projections.
2	For the O*Net score, the O*Net database version 9.0 was used. (www.onetcenter.org/database.html)
3	The education and training codes are from the Bureau of Labor Statistics (BLS) website at ftp://ftp.bls.gov/pub/special.requests/ep/optddata/optd0212.txt
Questi	ons and Comments
	Direct questions or comments to Rick Van Sickle, 602-542-6481, RVansickle@azdes.gov ; John Graeflin, 602-542-6492, JGraeflin@azdes.gov ; or Don Wehbey, 602-542-3686, DWehbey@azdes.gov at Research Administration, Az Dept of Economic Security.